MARTIN COUNTY

(Martin County Water Service Area Map)

- Estimated 1999 population of 11,900--67% on public water
- Estimated 2020 population of 10,600--81% on public water
- 170 miles of water line, with plans for additional 42 miles
- Estimated funding needs for public water 2000-2005--$10,800,000
- Estimated funding needs for public water 2006-2020--$1,800,000

Martin County had an estimated population of 11,939 (4,319 households) in 1999. Some 2,920 households (approximately 67%) were served by public water. The remainder relied primarily on wells. It is projected that the population of Martin County will be 10,600 (4,302 households) in the year 2020. Proposed water line extensions in the period 2000-2020 will serve another 600 households, so that public water will be provided to about 81% of the county's population.

Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers	Cost	Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	in $1000	in $1000	in $1000	in $1000	in $1000	in $1000
MARTIN								-
Martin Co. W/D	6	200	300	1,000	2,000	2,000	5,506	10,806
Total	6	200	300	1,000	2,000	2,000	5,506	10,806

Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New Customers	Cost	Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	in $1000	in $1000	in $1000	in $1000	in $1000	in $1000
MARTIN								-
Martin Co. W/D	36	402	1,800					1,800
Total	36	402	1,800					1,800

PUBLIC WATER SYSTEMS

The Martin County Water District is the only community water system in Martin County and, by jurisdiction, is co-terminus with the county boundaries. There are 2 non-community systems in Martin County. Consequent upon the recent merger (1997) of Martin County Water District 1 and Martin County Water District 2, the new county-wide District has achieved some economies of scale and has been able to retain a much needed full time

WATER SERVICE AREAS
MARTIN COUNTY
Kentucky

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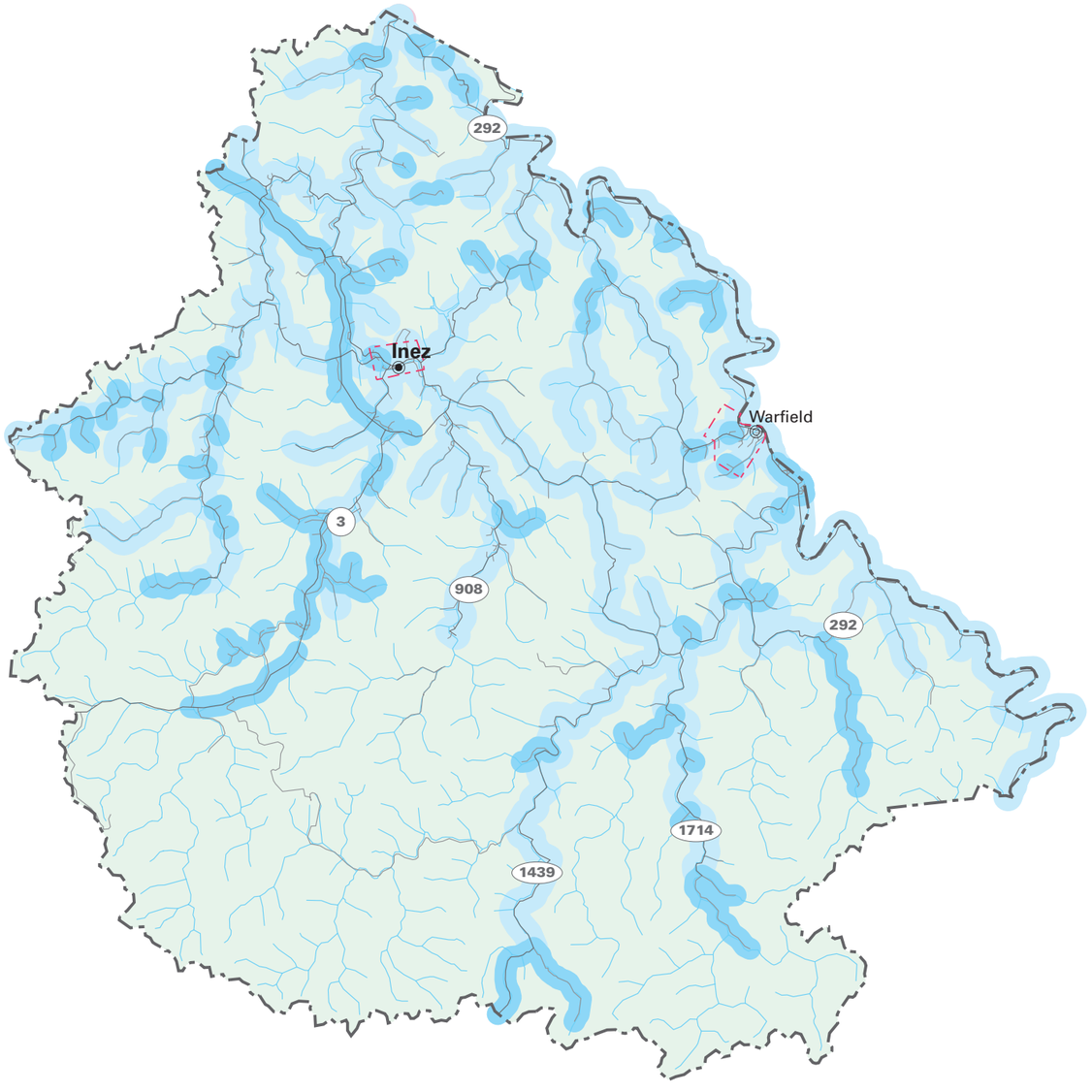

WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		MARTIN COUNTY WATER DISTRICT
		BIG SANDY WATER DISTRICT/LAWRENCE COUNTY WATER DISTRICT

manager. The District relies upon the Crum Reservoir and an intake in the Tug Fork of the Big Sandy River at Turkey for raw water. The river intake requires a complete replacement to assure full benefit of the source during low flow conditions. Additionally, extensive renovation is needed at the water treatment plant to meet system demands and comply with mandated drinking water standards.

MARTIN COUNTY WATER DISTRICT

PWSID: 0800443
System Type:
Owner Type: ..... WATER DISTRICT
Surface Source: ..... LAKE
Purchase Source: ..... MOUNTAIN WATER
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD): 2.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons): 3,100,000.00
Total Service Connections: 3,105.00
Number of Employees: 9.00
Treatment Operator Class:
Distribution Operator Class:
Customer Rate for 1,000 Gallons: 4.04
O/M costs 1997: 368,109.00
O/M costs per Service Connection: 272.27
Net Revenue 1997: 107,396.00
Total Water Produced 1997 (gallons): 0.00
Water Sold 1997 (gallons): 91,570,000.00
Unaccounted-for Water 1997 (%): 50.19

The District was organized in the late 1960's and constructed a small reservoir as a source together with a treatment plant, service mains and ground storage tanks to serve Inez and surrounding communities in the western portion of the County. Several years later a distribution system was developed to begin serving the eastern portion of the county, relying on the same reservoir and treatment plant for source. Through several major line extension projects many customers were brought onto the system, requiring the development of an intake and raw water transmission main from the Tug Fork, and subsequently a plant modification to increase treatment capacity. The system is again at this same place: the treatment plant must be increased and the existing raw water intake requires relocation. While the District has water purchase agreements with the City of Kermit, WV, and

Mountain Water District in Pike County, unpredictability as to available volumes and water prices dictate that the District expand its own facilities.

Treatment capacity is 2mgd. The water source is Curtis Crum Reservoir. Storage capacity is 3,100,000 gallons. Of the District's 3,105 current service connections, 2,921 are residential and 184 are commercial. Consequent upon the recent merger there is still two distinct service rates in place. The current consumer cost for 5,000 gallons of water in Section A is $26.20 and in Section B is $15.65.

Historically, first as two distinct systems (Martin County WD 1 & 2), and now the merged, the District has been confronted with high water loss, stemming from a variety of causes, including improper construction inspection, failure of service tubing over time, and lack of consistent management. The issue is now uppermost among the District's priorities. Relying on assistance provided via the Kentucky Rural Water Association and others, the District is focusing on a systemic approach to loss control. The District has advanced an aggressive meter management program together with a line-break identification and repair program. These are consuming staff and monetary resources, but with significant return on this investment.

Taking into consideration the reduction of water loss to the 12-15% level, there is still need for additional capacity to meet system demand. The proposed re-development of the intake on the Tug Fork is critical. At present low flows during periodic drought conditions leave the system vulnerable to insufficient supply. The new intake project will correct this situation by locating the structure downstream into a deeper pooling area with a solid bottom. Similarly, the proposed renovation of the treatment plant will correct an array of deficiencies and allow the system to meet all current service demand with sufficient design capacity to meet the demand of the expected growth in the County.

Potential development of the system is excellent. The District is soon to bid a major extension project, affecting among other communities the KY Route 3 area to the new Honey Branch Industrial Park. The District has assumed a pivotal role in the infrastructure development for this project that includes the construction of a 1,300-bed facility for the Federal Bureau of Prisons. The District is a major participant in an interlocal cooperation

agreement. The City of Paintsville, the City of Prestonsburg, the Fiscal Courts of Martin, Johnson, Floyd, and Pike Counties, the Honey Branch Industrial Development Authority, and the Big Sandy Area Development District have joined in a collaborative approach to providing water and wastewater infrastructure to the Honey Branch Industrial Park in Martin County. Consequent upon this project, the District and the City of Prestonsburg will each have water distribution facilities in place to provide mutual emergency back up to attenuated portions of their respective service mains as the need may arise in the future.

Normal growth potential along existing service mains is also excellent for the District and can be expected to continue through the short term (2000-2005) at a minimum of 10% each year. The District, like all other utilities, has traditionally expanded into those areas most feasibly (most cost effectively) served. Areas remaining to be served will require more costly facilities and the pace of this growth is reasonably expected to slow through the long term (2005-2020). However, it is also reasonable to expect that based on ground water quality and availability over 95% of households in Martin County will be served by the District by or before the end of the long term.

The Martin County Water District is planning the complete replacement of its existing raw water intake on the Tug Fork, complete with structure, transmission line, and pumps. Total estimated cost on this project is $ 507,000.

Additionally, the water treatment plant at Inez will undergo major modifications to the extent of reconstruction of all major components, including clarification, filter gallery, disinfection, pumps, controls, and related appurtenances. The estimated cost for this project is $4,200,000. Total estimated cost of the intake and the plant projects is $ 4,707,000.

OTHER SYSTEMS

MARTIN COUNTY COAL CORP.

Martin County Coal Corp. is located in Martin County. The system serves a population of 32 with 1 service connections. The water source for the private, non-transient, non-community system is ground water from wells.

FAST LANE IV

Fast Lane IV is located in Martin County. The system serves a population of 100 with 1 service connections. The water source for the private, transient, non- community system is ground water from wells.

PRIVATE DOMESTIC SYSTEMS

About 4,000 people in Martin county rely on private domestic water supplies: 3,850 on wells and 150 on hauled water, cisterns and other sources.

Most wells drilled in valley bottoms are adequate for a modern domestic supply. Nearly three-quarters of the wells drilled on hillsides are adequate for a domestic supply except in the northern third of the county where only half of drilled wells on hillsides produce enough water for domestic use. Wells on hilltops and ridges yield smaller quantities of water. In the central and southern two-thirds of the county, drilled wells more than 200 feet deep in valleys may yield enough water for small municipal or industrial supplies.

Ground water obtained from most drilled wells in this area is moderately to extremely hard and contains noticeable amounts of iron. Salty water may be found in wells drilled less than 100 feet below the level of the principal valley bottoms, except in the northern third of the county where salty water can be found as shallow as 50 feet.

A few springs supply sufficient quantities of water for domestic use. Almost all springs yield less than 5 gpm.